

REMARKS

The Examiner required that the Title be clearly indicative of the claimed invention.

Applicants have amended the Title accordingly.

Claims 1-10 have been rejected under 35 USC 103(a) as unpatentable over European Patent Publication No. EP 1020840 (Ishii) in view of U.S. Patent No. 5,745,088 (Kornher). This rejection is respectfully traversed.

Claim 1 states that the active matrix display device operates under a normal operation mode in which the pixel element electrode receives a pixel element voltage for presenting an analog image and under a memory operation mode in which a digital image is presented based on a voltage held by the retaining circuit. Claim 1 also states that at least one of the retaining circuits is disposed as a common retaining circuit for two or more of the pixel elements. Because of this structure, the claimed display device can provide a fine display under the normal display mode using all the pixel elements as individual and independent pixels and provide a display with reduced resolution to achieve energy saving and compact device design. See, for example, page 14, lines 13-18 and page 15, line 22 - page 16, line 1, of the specification.

The Examiner contends that Ishii teaches the claimed combination of the normal operation mode for the analog image and the memory operation mode for the digital image. However, all the teachings of Ishii relate to the memory operation mode, not to the normal operation mode. In Ishii's device, a data signal is stored in memory circuit 103, and either the first voltage 116 or the second voltage 117 is applied to pixel electrode 106 based on the data signal stored in the memory circuit 103. See, for example, paragraphs [0028] and [0029] of Ishii. This configuration corresponds to the memory operation mode of the claimed display device, in which "a digital image is presented based on a voltage held by the retaining circuit," as stated in

claim 1. Ishii describes no other display mode, or any display circuit for another display mode. In other words, Ishii does not describe the claimed normal operation mode for presenting the analog image or any structure that enables such a mode. Ishii's display device can provide only discrete image signals to the pixel electrode 106, for example, the first voltage 116 and the second voltage 117, while the claimed normal operation mode can provide an arbitrary image signal to the pixel element electrode.

Furthermore, applicants point out that persons of ordinary skill in the art would not have been motivated to add Kornher's shared memory circuit to Ishii's display device. As explained above, Ishii's device relies only on the memory operation mode for displaying the image. In other words, the pixel electrode 106 receives the image signal only from the memory circuit 103. If two or more of Ishii's pixel electrodes share one memory circuit, the pixel electrodes sharing the same memory circuit operate as one pixel. This results in a significant reduction in the display resolution. Without a scheme in which the original resolution of the pixel electrode array is fully utilized as a display despite the shared memory circuit construction, such as the claimed combination of the normal operation mode and the memory operation mode, persons of ordinary skill in the art would never have thought to apply Kornher's shared memory construction to Ishii's display device. Although the Examiner contends that cost reduction and energy savings are the motivations to combine Ishii and Kornher, the Examiner has presented no evidence that persons of ordinary skill in the art would have reduced the resolution of the display device, regardless of any cost or energy savings.

Accordingly, Ishii and Kornher together do not teach or suggest the display device of claim 1 as a whole.

The Examiner points out properly that claims 4 and 7 describe structures substantially similar to the structure of claim 1. Thus, Ishii and Kornher together do not teach or suggest the display device of claim 4 or the display device of claim 7.

The rejection of claims 1-10 under 35 USC 103(a) over Ishii and Kornher should be withdrawn.

In light of the above, a Notice of Allowance is solicited.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952**, referencing Docket No. 492322002500.

Respectfully submitted,

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